

TECHNICAL DATASHEET

Gebofix TF styrene-free vinylester-base chemical anchor in glass capsule

EN
rev. 06/2015
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Certificates

Certification according to ETAG 001-5 for anchoring of threaded bars on non-cracked concrete (Option 7)



Base material

certified use
non-cracked concrete

Sizes

art.	descr.	use with bar
C08	TF08	M8
C10	TF10	M10
C12	TF12	M12
C16	TF16	M16
C20	TF20	M20
C24	TF24	M24

Intended use

Dry or wet non-cracked concrete

Flooded holes on non-cracked concrete (bars M12 to M24)

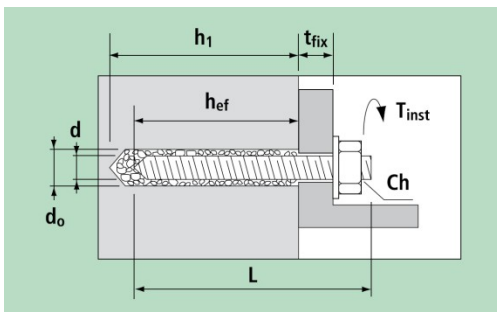
Installation temperature: between -5 and +25 °C

Work temperature: between -40 and +80 °C (maximum short term temperature +80 °C; long term +50 °C)

Shelf life: 18 months (storage temperature between +5 and +25 °C)

Time and temperatures

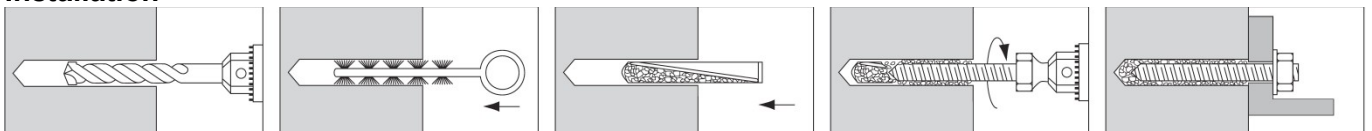
temperature of base material	curing time in dry concrete	curing time in wet concrete
-5 ÷ 0 °C	360 min	720 min
0 ÷ 5 °C	180 min	360 min
5 ÷ 10 °C	90 min	180 min
10 ÷ 20 °C	40 min	80 min
> 20 °C	20 min	40 min



d = bar diameter
L = bar length
t_{fix} = fixable thickness
d₀ = hole diameter
h₁ = minimum hole depth
h_{nom} = setting depth
h_{ef} = effective anchorage depth
T_{inst} = tightening torque

$$h_{ef} = h_1 = h_{nom}$$

Installation



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Setting parameters

art.		C08	C10	C12	C16	C20	C24
bar size		M8	M10	M12	M16	M20	M24
capsule diameter	d _p mm	9	10.5	12.5	16.5	23	23
capsule length	L _p mm	80	85	95	95	160	190
hole diameter	d ₀ mm	10	12	14	18	25	28
hole depth	h _{ef} mm	80	90	110	125	170	210
minimum spacing	s _{min} mm	60	70	85	95	130	160
minimum edge distance	c _{min} mm	60	70	85	95	130	160
min. base material thickness	h _{min} mm	110	120	150	160	220	300
tightening torque	T _{inst} Nm	10	20	40	60	120	150

Strength data

Valid for a single anchor far from the edges, on a thick concrete member of class C20/25.

Characteristic resistance (kN)

bar size		M8	M10	M12	M16	M20	M24
tension	N _{Rk}	12,0	16,0	25,0	35,0	60,0	75,0
shear	V _{Rk}	8,0	13,0	19,0	36,0	57,0	83,0

Design resistance (kN)

bar size		M8	M10	M12	M16	M20	M24
tension	N _{Rd}	6.7	8.9	13.9	19.4	33.3	41.7
shear	V _{Rd}	6.4	10.4	15.2	28.8	45.6	66.4

Recommended load (kN)

bar size		M8	M10	M12	M16	M20	M24
tension	N _{rec}	4.8	6.4	9.9	13.9	23.8	29.8
shear	V _{rec}	4.6	7.4	10.9	20.6	32.6	47.4

1 kN ≈ 100 kg

steel failure, class 5.8

Characteristic resistances N_{Rk} and V_{Rk} derive from parameters certified in European Technical Assessment ETA. Design resistances N_{Rd} e V_{Rd} include partial safety factors on strengths. Recommended values N_{rec} e V_{rec} include the further 1.4 safety factor.

For the design of fixing with reduced spacing, near the edge or on concrete with increased resistance or reduced thickness refer to ETA or Declaration of Performance of the product and use Design Method A outlined in Annex C of ETAG 001 (issued by EOTA).

Parameters for design

Critical distances and spacing

bar size		M8	M10	M12	M16	M20	M24
critical spacing	s _{cr,sp} mm	240	270	330	375	510	630
critical edge distance	c _{cr,sp} mm	120	135	165	188	255	315

Increasing factors for concrete strength (excluding steel failure)

Ψ _c	C30/37	1,08
	C40/50	1,15
	C50/60	1,19